WHAT IS CLAIMED IS:

1. A yield management method for optimising a yield parameter resulting from assigning a capacity offered by a future instance of a service to each one of a plurality of different categories of requests competing for the capacity, the capacity being defined by at least one capacity variable, the method including the steps of:

storing a set of historical profiles for each one of a plurality of previous instances of the service, the set including a historical profile of an historical value of each capacity variable reserved by each category,

assigning a probability to each previous instance of the service,

estimating a potential profile of a potential value of the capacity variable from each historical profile according to a corresponding current value of the capacity variable reserved by the category for the future instance of the service and according to a corresponding unconstrained demand of the capacity variable for the category in the previous instance of the service,

defining a historical scenario for each previous instance of the service, the historical scenario including a final potential capacity variable from each corresponding potential profile, and

determining an authorisation to allocate the offered capacity for each capacity variable of each category in the future instance of the service by applying a

stochastic model to the historical scenarios according to the corresponding probabilities.

2. The yield management method according to claim 1, wherein the step of assigning the probability includes:

determining a first coefficient depending on a difference between a temporal period associated with the previous instance of the service and a temporal period associated with the future instance of the service,

determining a second coefficient depending on a space between a current time and an occurrence time of the previous instance of the service,

calculating a weight by combining the first coefficient and the second coefficient,

calculating the probability by normalising the weight.

3. The yield management method according to claim 2, wherein the step of calculating the weight consists of calculating a weighted sum of the first coefficient and the second coefficient.

4. The yield management method according to claim 1, wherein each historical profile and each potential profile include a plurality of corresponding snapshots of the reserved capacity variable and of the potential capacity variable, respectively, the step of estimating the potential profile including:

estimating an opening coefficient for each period

comprised between two consecutive snapshots, the opening coefficient being indicative of a percentage of time during which the category was open in the period,

calculating an emphasis value for each period as a weighted mean of a gradient in the period of the reserved capacity variable for the category in a subset of the corresponding historical profiles,

estimating a potential gradient for each period as a linear interpolation between the gradient, for a first value of the opening coefficient indicative of a complete opening of the category, and the highest between the gradient and the emphasis value, for a second value of the opening coefficient indicative of a complete closure of the category, and

constructing the potential profile from a time corresponding to the current time by integrating the potential gradients starting from the corresponding current capacity variable.

5. The yield management method according to claim 4, wherein the step of estimating the potential profile further includes:

verifying whether at least one result of the integration in each snapshot for each category is not strictly positive, and

setting each potential capacity variable of the category in the snapshot to zero if the verification is affirmative.

6. The yield management method according to claim 4, wherein the at least one capacity variable consists of a plurality of capacity variables, the step of estimating the potential profile further including reconciling the potential capacity variables for each category in the snapshot to a reference value of a logic relation therebetween.

7. The yield management method according to claim 6, wherein the step of reconciling includes:

verifying whether the logic relation between the potential capacity variables for the category in the snapshot is included between a first limit defined by the logic relation between the reserved capacity variables for the category in the snapshot and a second limit defined by the logic relation between the potential capacity variables for the category in a preceding snapshot, and

updating the potential capacity variables for the category in the snapshot for correcting the corresponding logic relation to the closest one of the first limit and the second limit.

8. The yield management method according to claim 1, further including the steps of:

determining a historical unit value of the yield parameter for each category in each previous instance of the service if available,

estimating the historical unit yield parameter for each category in the other previous instances of the service as a weighted mean of the corresponding historical unit yield parameters available,

estimating a potential unit value of the yield parameter for each category in each previous instance of the flight from the corresponding historical unit yield parameter, and

calculating a potential value of the yield parameter for each category in each previous instance of the service multiplying the corresponding potential unit yield parameter by the corresponding potential capacity variable, the potential yield parameter being included in the corresponding historical scenario.

9. The yield management method according to claim 8, wherein the step of estimating each potential unit yield parameter includes:

determining a current unit value of the yield parameter for the corresponding category in the future instance of the flight, and

calculating each potential unit yield parameter as a sum of the corresponding historical unit yield parameter and current unit yield parameter weighted according to a corrective factor.

10. The yield management method according to claim 9, wherein the step of calculating the potential unit yield

parameter further includes:

determining a further first coefficient depending on a difference between the current time and a planned occurrence time of the future instance of the service,

determining a further second coefficient depending on an increment of the at least one potential capacity variable with respect to the at least one current capacity variable for the category,

calculating the corrective factor by combining the further first coefficient and the further second coefficient, and

calculating the potential yield parameter as a sum of the historical yield parameter and the current yield parameter weighted according to the corrective factor.

11. The yield management method according to claim 8, further including the steps of:

calculating a weighted mean value of the potential yield parameter for each capacity variable of each category,

determining a nesting order of the categories for each capacity variable according to the corresponding weighted mean potential yield parameters.

12. The yield management method according to claim 11, wherein the step of determining each nesting order includes:

providing an input nesting order of the categories

for each capacity variable, and

updating each input nesting order by ranking the categories having at lest one scenario with each component thereof that is strictly positive.

13. The yield management method according to claim 1, wherein the step of determining the authorisations includes:

providing an aggressiveness parameter indicative of an attitude to the risk,

defining a first portion of a target function, the first portion calculating the yield parameter by assigning the offered capacity with a nesting policy,

defining a second portion of the target function, the second portion calculating the yield parameter by assigning the offered capacity with an out of nesting policy,

defining the target function as a sum of the first portion and the second portion weighted according to the aggressiveness parameter, and

calculating the authorisations by optimising the target function.

14. The yield management method according to claim 13, wherein the step of defining the second portion includes defining an independent component of the second portion for each capacity variable.

15. The yield management method according to claim 1, further including the step of providing a user-defined scenario with a corresponding probability, the stochastic model being further applied to the user-defined scenario according to the corresponding probability.

16. The yield management method according to claim 1, wherein the service consists of a cargo flight, the at least one capacity variable consists of a weight and a volume, and the yield parameter consists of a revenue.

17. A computer program application directly loadable into a working memory of a computer for performing the method of claim 1 when the application program is run on the computer.

18. A program product comprising a computer readable medium on which the program application of claim 17 is stored.

19. A yield management system for optimising a yield parameter resulting from assigning a capacity offered by a future instance of a service to each one of a plurality of different categories of requests competing for the capacity, the capacity being defined by at least one capacity variable, the system including means for storing a set of historical profiles for each one of a plurality of previous instances of the service, the set including a

historical profile of an historical value of each capacity variable reserved by each category, means for assigning a probability to each previous instance of the service, means for estimating a potential profile of a potential value of the capacity variable from each historical profile according to a corresponding current value of the capacity variable reserved by the category for the future instance of the service and according to a corresponding unconstrained demand of the capacity variable for the category in the previous instance of the service, means for defining a historical scenario for each previous instance of the service, the historical scenario including a final potential capacity variable from each corresponding potential profile, and means for determining an authorisation to allocate the offered capacity for each capacity variable of each category in the future instance of the flight by applying a stochastic model to the historical scenarios according to the corresponding probabilities.

20. A yield management system for optimising a yield parameter resulting from assigning a capacity offered by a future instance of a service to each one of a plurality of different categories of requests competing for the capacity, the capacity being defined by at least one capacity variable, the system including a memory for storing a set of historical profiles for each one of a plurality of previous instances of the service, the set

including a historical profile of an historical value of each capacity variable reserved by each category, a module for assigning a probability to each previous instance of the service, a module for estimating a potential profile of a potential value of the capacity variable from each historical profile according to a corresponding current value of the capacity variable reserved by the category for the future instance of the service and according to a corresponding unconstrained demand of the capacity variable for the category in the previous instance of the service, a module for defining a historical scenario for each previous instance of the service, the historical scenario including a final potential capacity variable from each corresponding potential profile, and a module for determining an authorisation to allocate the offered capacity for each capacity variable of each category in the future instance of the flight by applying a stochastic model to the historical scenarios according to the corresponding probabilities.